



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,137	02/27/2002	Edgar M. Armacanqui	780396.92204	3624

7590 11/20/2003  
Bennett J. Berson  
Quarles & Brady LLP  
1 South Pinckney Street  
P.O. Box 2113  
Madison, WI 53701-2113

EXAMINER

KALAFUT, STEPHEN J

ART UNIT	PAPER NUMBER
----------	--------------

1745

DATE MAILED: 11/20/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,137

Applicant(s)

ARMACANQUI ET AL.

Examiner

Stephen J. Kalafut

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other:

Art Unit: 1745

Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The formula in claims 1 and 17, "Y SO<sub>x</sub>", would have indefinite scope because neither the range for "x" is specified, nor are the possible components of Y identified. Claims 2 and 18 are free of the latter informality. Claims 5, 8, 12, 14, 16, 21, 24, 28, 30 and 32 contain the trademark/trade names Witcomate 1840X, Dyasulf 2031, Dymosol 2031, Freedom SOA-70, Freedom SOA-70WV and/or RM-510. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the surfactants and, accordingly, the identification/description is indefinite. Claims 7, 13, 15, 23, 29 and 31 recite the word "type", appended to otherwise-definite terms, thus rendering them indefinite, *ex parte Copenhagen*, 109 USPQ 118 (Bd. App. 1955).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1745

Claims 1, 2, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by either Gillman *et al.* (US 3,918,989) or Yoshizawa *et al.* (US 5,128,222).

Gillman *et al.* disclose an electrode material comprising a metal such as zinc (column 2, lines 10-15); a cellulose derivative (column 2, lines 62-68), which would be a gelling agent; alkaline electrolyte (column 2, lines 30-46); and a surfactant which comprises a sulfate or sulfonate group, along with an alkyl group (column 4, lines 10-15), which would fall into the present formula, to the extent that it is understood. The zinc is desired to be in powdered form, with some mercury therein (column 4, line 67 through column 5, line 14), and would thus be a metal alloy powder. The active paste is deposited onto a substrate, which would be a current collector (column 1, lines 59-63). Although the separator is not specifically mentioned, it would be a necessary component of a spirally wound alkaline cell (column 1, line 67 through column 2, line 5), and thus immediately envisionable. Since the electrode materials also include cathode materials such as manganese dioxide and mercuric oxide (column 2, lines 13-14), a cathode with its corresponding substrate (current collector) is also disclosed.

Yoshizawa *et al.* disclose an anode material comprising zinc alloy powder, an alkaline electrolyte comprising KOH and a gelling agent comprising sodium polyacrylate and carboxy methyl cellulose (column 4, lines 20-30). The anode material also includes a surfactant which has a  $\text{SO}_3\text{W}$  group, where W is an alkali metal, and hydrocarbon units (column 2, lines 56-67). The  $\text{SO}_3\text{W}$  group would include an  $\text{SO}_3^-$  moiety and the alkali metal as a cation, thus meeting the formula in claims 1 and 17, to the extent that it is understood. The anode (2) has a current collector (4), and is used with a separator (3) and a cathode (1) with its current collector (6), to form a complete battery.

Art Unit: 1745

Claims 15, 16, 31 and 32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. The anode mixture comprising both a sulfated oleic acid and an ethylene oxide-adduct phosphate ester is not disclosed by the prior art applied above or cited below.

Claims 3, 4, 6-14, 19, 20 and 22-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Each claim also includes the combination of both a sulfate surfactant and a phosphate surfactant, or a specific sulfated surfactant such as sulfated octadecanoic or oleic acid. Claims 5 and 21 recite only trademarks as specific surfactant types. Thus, whether these *per se* confer patentability cannot be determined.

The use of the trademarks listed above has been noted in this application. Although the use of trademarks is permissible in patent applications, in the specification, not the claims, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Durkot *et al.* (US 6,284,410) and Woodnorth *et al.* (US 6,555,266) disclose anodes which include phosphate esters. Nagai *et al.* (JP 62-222,568) disclose oleic amide compounds used as surfactants for positive electrodes in organic electrolyte cells.

Art Unit: 1745


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 703-308-0433.

The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 703-308-2383. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

sjk

  
STEPHEN J. KALAFUT  
EXAMINER  
1700